

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method to automatically soft configure a node in a data center having a plurality of racks, where each rack is identified by a unique rack location, where the node is a rack-mountable node, and where the data center further includes various servers, devices, and rack locations, the method comprising:

tying together the various servers, devices, and rack locations of the data center through a Local Area Network (LAN) mechanism;

discovering a new unit deployed within ~~a~~the data center;
finding a configuration template for the discovered unit; and
automatically installing software on said discovered unit based upon said configuration template.

2. (Original) A method according to claim 1 wherein discovering includes:
determining whether said unit requires soft configuration; and
if said unit requires soft configuration, then receiving a network request for configuration data from said unit.

3. (Original) A method according to claim 2 wherein said discovering further includes:
determining if the MAC (Media Access Control) address sent with said network request is of a known MAC.

4. (Original) A method according to claim 3 wherein determining includes:
extracting the MAC of the network device which originated said network request;
comparing the determined MAC with a list of known MACs, said MAC being known if
said determined MAC is also found in said list.

5. (Original) A method according to claim 3 wherein if said MAC is known, then
discovering further includes:
finding an asset ID in an asset records database, said asset ID based upon said MAC.

6. (Original) A method according to claim 5 further comprising:
determining the state of said unit;
if said state is one of initial and re-install, then proceeding with said finding of a
configuration template; and
if said state is not one of initial and re-install then proceeding with the normal boot
sequence of said unit.

7. (Original) A method according to claim 3 further comprising:
if said determined MAC is not known, then proceeding with intruder diagnostics.

8. (Original) A method according to claim 1 further comprising:
prior to a new unit being deployed, associating the unit with an asset record.

9. (Original) A method according to claim 8 wherein associating includes:
creating said asset record with a specific asset ID, said asset ID tied to a fixed parameter of said unit;

waiting for said unit to be received and prepared for assembly;
correlating said received unit with said created asset record.

10. (Original) A method according to claim 9 wherein said correlating includes:
reading bar-code information on components of said unit;
determining which one of a plurality of asset records contains parameters that match said bar-code information; and
associating said unit with said determined asset record, said determined asset record being the same as said created asset record for said unit.

11. (Original) A method according to claim 1 wherein said unit is mountable within a rack of said data center.

12. (Original) A method according to claim 9 wherein said fixed parameter is the MAC address of the primary Network Interface Card (NIC) of said unit.

13. (Currently amended) A system to automatically soft configure a node in a data center having a plurality of racks, where each rack is identified by a unique rack location, where the node is a rack-mountable node, and where the data center further includes various servers, devices, and rack locations, the system comprising:

a data center deployable unit (node) connectable to a network;

a Local Area Network (LAN) mechanism configured to tie together the various servers, devices, and rack locations of the data center;

a management system server configured to manage a database of asset records, one of said asset records corresponding to said node, said management system server maintaining and updating state information about said node in its corresponding asset record, said management system server connected to said network; and

a software configuration system server configured to automatically install software on said node once said node is deployed and connected to said network, said software configuration system server connected to said network.

14. (Original) A system according to claim 13 wherein said software configuration system is instructed on the manner and content of said installation by a software configuration template.

15. (Original) A system according to claim 13 further wherein said management system server is configured to:

determine whether said node requires soft configuration; and

if said node requires soft configuration, then receiving a network request from said node.

16. (Original) A system according to claim 15 wherein said management system server determines if the MAC of the network device which initiated said request is a known MAC, said network device a part of said node.

17. (Original) A system according to claim 13 wherein said node is a computer system mountable within a rack in said data center.

18. (Original) A system according to claim 16 wherein said network device is a Network Interface Card (NIC).

19. (Original) A system according to claim 14 wherein said management system server finds the asset ID corresponding to said node upon said node sending a network request message.

20. (Original) A system according to claim 19 wherein said management system server is further configured to:

determine the state of said unit;

if said state is one of initial and re-install, then proceed with said finding of said configuration template; and

if said state is not one of initial and re-install then allow said node to proceed with the normal boot sequence of said unit.

21. (Original) A system according to claim 13 wherein said management system server is configured to associate said node with its said corresponding asset record.

22. (Original) A system according to claim 21 wherein said management system sever is further configured to:

create said asset record with a specific asset ID, said asset ID tied to a fixed parameter of said unit;

wait for said unit to be received and prepared for assembly; and
correlate said received unit with said created asset record.

23. (Currently amended) An article to automatically soft configure a node in a data center having a plurality of racks, where each rack is identified by a unique rack location, where the node is a rack-mountable node, and where the data center further includes various servers, devices, and rack locations, the article comprising a computer readable medium having instructions stored thereon which when executed cause:

tying together the various servers, devices, and rack locations of the data center through a Local Area Network (LAN) mechanism;

discovering a new unit deployed within ~~a~~the data center;
finding a configuration template for the discovered unit; and
automatically installing software on said discovered unit based upon said configuration template.

24. (Original) An article according to claim 23 wherein discovering includes:
determining whether said unit requires soft configuration; and
if said unit requires soft configuration, then receiving a network request from said unit.

25. (Original) An article according to claim 24 wherein said discovering further includes:
determining if the MAC (Media Access Control) address sent with said network request is a known MAC.

26. (Original) An article according to claim 25 wherein if said MAC is known, then discovering further includes:

finding an asset ID in an asset records database, said asset ID based upon said MAC.

27. (Original) An article according to claim 26 that further causes:

determining the state of said unit;

if said state is one of initial and re-install, then proceeding with said finding of a configuration template; and

if said state is not one of initial and re-install then proceeding with the normal boot sequence of said unit.

28. (Original) An article according to claim 23 that further causes:

prior to a new unit being deployed, associating the unit with an asset record.

29. (Original) An article according to claim 28 wherein associating includes:

creating said asset record with a specific asset ID, said asset ID tied to a fixed parameter of said unit;

waiting for said unit to be received and prepared for assembly;

correlating said received unit with said created asset record.

30. (New) A method to automatically soft configure a node in a data center having a plurality of racks, where each rack is identified by a unique rack location and where the node is a rack-mountable node, the method comprising:

presenting a node as a set of components installed in a given rack, where the given rack is identified by a predetermined rack location and where at least one component of the set of components is characterized by at least one component attribute;

compiling a network request from the unique rack location of the given rack and the at least one component attribute;

providing power to the node, where providing power to the node automatically results in sending the network request from the node; and

in response to sending the network request, automatically installing at least one application on the node to soft configure the node.

31. (New) The method of claim 30, where presenting the node includes presenting the node as being attached to a rack switch, where the rack switch is identified by an origin and where compiling the network request includes determining the unique rack location by determining the origin of the rack switch to which the node is connected.

32. (New) The method of claim 31, where compiling the network request additionally includes reading bar-code information on the at least one component.

33. (New) The method of claim 31, where the rack switch is one of a primary rack switch and a secondary rack switch.

34. (New) The method of claim 30, where the data center is divided into a plurality of predefined areas including a shipping/docketing area, an assembly area, and a rack area having the plurality of racks.

35. (New) The method of claim 34, where the data center further includes various servers, devices, nodes, and rack locations, the method further comprising:

tying together the various servers, devices, nodes, and rack locations of the data center through a Local Area Network (LAN) mechanism.

36. (New) The method of claim 30, where the application is operating system software and, after automatically installing at least one application on the node to soft configure the node, the method further comprising:

configuring the operating system software on the node to completely deploy the node as an operational part of the given rack into which the node is installed.

37. (New) The method of claim 30, where the set of components are designated a unit before being installed in the given rack and, prior to presenting a node, the method further comprising:

presenting a management system housing a plurality of configuration templates and configured to house an asset record, where each configuration template includes a series of configuration parameters and instructions for each category into which the unit may be categorize.

38. (New) The method of claim 37, prior to presenting a node as a set of components installed in a given rack, the method comprising:

ordering the set of components as a unit through a purchase order, where the purchase order includes an order attribute list, where the order attribute list identifies ordered attributes of the set of components;

creating an asset record from the order attribute list;

associating the asset record with the ordered unit based on a parameter; where the parameter includes a Media Access Control (MAC) address of a Network Interface Card (NIC) of the ordered unit; and

creating an asset ID that uniquely identifies the ordered set of components and the predetermined rack location; and

housing the asset record and the asset ID in the management system such that the asset ID and the asset record are in a one-to-one relationships with each other.

39. (New) The method of claim 38, where the ordered attributes of the set of components includes a specified amount of memory and number of ports and includes a list of model numbers.

40. (New) The method of claim 38 further comprising:

receiving the set of components into inventory;

creating an inventory attribute list by comparing attributes in the received set of components with those ordered attributes listed in the order attribute list;

updating the asset record with the inventory attribute list;

41. (New) The method of claim 40, where receiving the set of components into inventory occurs before ordering the set of components.

42. (New) The method of claim 40 further comprising:
determining a Media Access Control (MAC) address of the set of components from a Network Interface Card (NIC) in the set of components; and
updating the asset record with the determined Media Access Control (MAC) address.

43. (New) The method of claim 40 further comprising:
in response to sending the network request, finding a configuration template in the management system by comparing the predetermined rack location in the network request with the rack locations in each asset ID; and
sending to the node the found configuration template.

43. (New) The method of claim 40 further comprising:
determining whether the node is in a reinstall state; and
if the node is in a reinstall state, then first scrubbing the node before soft configuring the node

44. (New) The method of claim 40 further comprising:
if at least one of ordering, inventorying, assembling, installing, and operating the node, then updating the asset record.